Attorney Docket No.: 005100.P004 Express Mail No.: EV 681573731 US
Client Docket No.: 10.0508 PATENT

## **REMARKS**

This Amendment and Response to Non-Final Office Action is being submitted in response to the non-final Office Action mailed July 8, 2005. Claims 1-20 are pending in the Application. Claims 1-20 stand rejected. Specifically, Claims 11, 12, 14, and 18-20 stand rejected under 35 U.S.C. 102(e) as being anticipated by Garg et al. (U.S. Patent Application No. 2002/0131442). Claims 1-7, 10, 13, and 15-17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Garg et al. Finally, Claims 8 and 9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Garg et al. in view of Irwin et al. (U.S. Patent No. 5,841,771).

In response to these rejections, Claims 1, 2, 4, 6, 7, 9-11, 13, 14, and 16-20 have been amended to further clarify the subject matter which Applicants regard as the present invention. Claim 8 has been canceled. These amendments are fully supported in the Specification, Drawings, and Claims of the Application and no new matter has been added. Based upon the amendments, reconsideration of the Application is respectfully requested in view of the following remarks.

## 102(e) and 103(a) Rejections:

In response to the above rejections, independent Claim 1 has been amended to recite:

- 1. A circuit comprising:
- an array of cells comprising at least *a current cell* and a previous cell operably connected according to a sequence, at least *the current cell* comprising:
- a first multiplexer, the first multiplexer receiving a plurality of data streams,
- a space control register coupled to control the first multiplexer,

Attorney Docket No.: 005100,P004 Express Mail No.: EV 681573731 US
Client Docket No.: 10,0508 PATENT

a latch coupled to receive a selected data stream from the plurality of data streams from *the first multiplexer*,

a second multiplexer, the second multiplexer selectively receiving a selected bit from the selected data stream from the latch and a data stream from the previous cell, and

a control logic coupled to control the second multiplexer; and

a control circuit coupled to control the latch of at least *the current* cell to select the selected bit from the selected data stream.

Likewise, independent Claim 11 has been amended to recite:

11. A method in *a cell*, which is implemented in an array of cells operably connected according to a sequence, the method comprising:

receiving multiple first streams of bits at a first multiplexer in the cell;

selecting one or more bits from one of the received multiple first streams of bits to be latched within **the cell** based, at least in part, on a space control register value and a time control register value;

receiving at *a second multiplexer* in *the cell* one or more bits output by a previous cell in the sequence; and

outputting a second stream of bits including the selected one or more bits and the one or more bits received from the previous cell.

Thus, independent Claims 1 and 11 now recite, in an affirmative and explicit manner, a circuit comprising a cell that, within its confines and boundaries, includes both a first multiplexer and a second multiplexer. The first multiplexer is operable for receiving a plurality of data streams and outputting a selected data stream from the plurality of data streams. The second multiplexer is operable for indirectly receiving one or more selected bits from the selected data stream from the plurality of data streams AND directly receiving a data stream from a previous cell. The second multiplexer is operable for outputting a data stream that selectively includes the one or more selected

Attorney Docket No.: 005100.P004 Express Mail No.: EV 681573731 US
Client Docket No.: 10.0508 PATENT

bits from the selected data stream from the plurality of data streams AND the data stream received from the previous cell.

Examiner, in his Office Action, indicates that the "cells" (Figure 3, 302 and 304) of Garg et al. are the same as the current cell of the present invention (citing page 7, paragraph [0067]). These "cells" of Garg et al., however, are clearly illustrated in Figure 7, as Examiner also indicates, and include only a single multiplexer 702, not a first multiplexer AND a second multiplexer as recited in amended independent Claims 1 and 11. The definition of what is and what is not a "cell," and this important difference, are crucial to the difference in functionality of the architecture of Garg et al. and that of the present invention.

As described above, the first multiplexer of the present invention is operable for receiving a plurality of data streams and outputting a selected data stream from the plurality of data streams. The second multiplexer of the present invention is operable for indirectly receiving one or more selected bits from the selected data stream from the plurality of data streams AND directly receiving a data stream from a previous cell. The second multiplexer of the present invention is also operable for outputting a data stream that selectively includes the one or more selected bits from the selected data stream from the plurality of data streams AND the data stream received from the previous cell.

Information passed from one "cell" to another in Garg et al. is actually passed from one switch module (302 and 304) to another, not from one second multiplexer o another as in the present invention.

Irwin et al. do not remedy the deficiencies of Garg et al. with respect to the above arguments.

Attorney Docket No.: 005100,P004 Express Mail No.: EV 681573731 US
Client Docket No.: 10,0508 PATENT

Therefore, Applicants submit that the rejections of independent Claims 1 and 11 under both 35 U.S.C. 102(e) and 35 U.S.C. 103(a) have now been overcome and respectfully request that these rejections be withdrawn. Because pending Claims 2-7, 9, 10, and 12-20 depend from independent Claims 1 and 11, Applicants respectfully request that the rejection of these claims also be withdrawn.

Attorney Docket No.: 005100.P004 Express Mail No.: EV 681573731 US
Client Docket No.: 10.0508 PATENT

**CONCLUSION** 

Applicants would like to thank Examiner for the attention and consideration accorded the present Application. Should Examiner determine that any further action is necessary to place the Application in condition for allowance, Examiner is encouraged to contact undersigned Counsel at the telephone number, facsimile number, address, or email address provided below. It is not believed that any fees for additional claims, extensions of time, or the like are required beyond those that may otherwise be indicated in the documents accompanying this paper. However, if such additional fees are required, Examiner is encouraged to notify undersigned Counsel at Examiner's earliest

Respectfully submitted,

Date: October 6, 2005

convenience.

Christopher L. Bernard Registration No.: 48,234 Attorney for Applicants

DOUGHERTY, CLEMENTS, HOFER, BERNARD& WALKER

1901 Roxborough Road, Suite 300 Charlotte, North Carolina 28211 USA

Telephone: 704.366.6642 Facsimile: 704.366.9744 cbernard@worldpatents.com